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PTO/SB/01 (10-00)

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**DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)**

☐ Declaration Submitted with Initial Filing OR ☒ Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number PSU 2127

First Named Inventor Harry R. Allcock

**COMPLETE IF KNOWN**

Application Number 09 / 590,985

Filing Date June 9, 2000

Group Art Unit

Examiner Name

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MAY 06 2002  
TC 1700

**As a below named inventor, I hereby declare that:**

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

PROTON CONDUCTING POLYMER MEMBRANES

(Title of the Invention)

the specification of which

☐ is attached hereto

OR

☒ was filed on (MM/DD/YYYY) 06/09/2000

as United States Application Number or PCT International

Application Number 09/590,985

and was amended on (MM/DD/YYYY)

(if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	— <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto
60/138,710	06/11/1999	

[Page 1 of 2]

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# DECLARATION — Utility or Design Patent Application

Direct all correspondence to:

☐ Customer Number  
or Bar Code Label

OR ☒

Correspondence address below

Name Patrea L. Pabst; ARNALL GOLDEN & GREGORY, LLP

Address 2800 One Atlantic Center

Address 1201 West Peachtree Street

City Atlanta

State GA

ZIP 30309-3450

Country USA

Telephone (404) 873-8794

Fax (404) 873-8795

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR :

☐ A petition has been filed for this unsigned inventor

Given Name Harry R.  
(first and middle [if any])

Family Name Allcock  
or Surname

Inventor's  
Signature

*Harry R. Allcock*

6/1/01  
Date

Residence: City State College

State PA

Country USA

Citizenship US

Mailing Address 434 Kemmerer Road

Mailing Address

City State College

State PA

ZIP 16801

Country USA

NAME OF SECOND INVENTOR:

☐ A petition has been filed for this unsigned inventor

Given Name Michael A.  
(first and middle [if any])

Family Name Hofmann  
or Surname

Inventor's  
Signature

*Michael A. Hofmann*

6/1/01  
Date

Residence: City State College

State PA

Country USA

Citizenship US

Mailing Address 165 East Cherry Lane

Mailing Address

City State College

State PA

ZIP 16803

Country USA

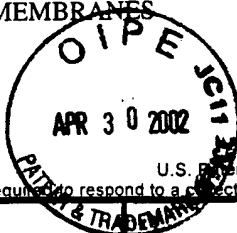
☒ Additional inventors are being named on the 1 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.

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Title: PROTON CONDUCTING POLYMER MEMBRANES

Filed: June 9, 2000

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## DECLARATION

ADDITIONAL INVENTOR(S)

Supplemental Sheet

Page 1 of 1

Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any))		Family Name or Surname	
Serguei N.		Lvov	
Inventor's Signature <i>Serguei Lvov</i>		Date 08/07/01	
Residence: City	State College	State PA	Country USA
Mailing Address		Citizenship US	
521 Easterly Parkway			
Mailing Address			
City	State College	State PA	Country USA
ZIP 16801			
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any))		Family Name or Surname	
Xiang Y.		Zhou	
Inventor's Signature		Date	
Residence: City	State College	State PA	Country USA
Mailing Address		Citizenship CN	
1014 South Pugh Street, Apt. 23			
Mailing Address			
City	State College	State PA	Country USA
ZIP 16801			
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any))		Family Name or Surname	
Digby		McDonald	
Inventor's Signature <i>McDonald</i>		Date 4/24/2001	
Residence: City	State College	State PA	Country USA
Mailing Address		Citizenship US	
1010 Greenbriar Drive			
Mailing Address			
City	State College	State PA	Country USA
ZIP 16801			

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PSU #99-2127 9266/6

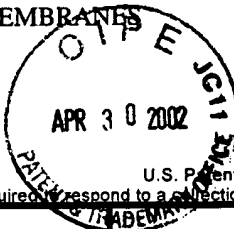
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Given Name (first and middle [if any])		Family Name or Surname	
Serguei N.		Lvov	
Inventor's Signature		Date	
Residence: City	State	Country	Citizenship
State College	PA	USA	US
Mailing Address 521 Easterly Parkway			
Mailing Address			
City	State	ZIP	Country
State College	PA	16801	USA
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Xiang Y.		Zhou	
Inventor's Signature		Date	
		06/04/01	
Residence: City	State	Country	Citizenship
State College	PA	USA	CN
Mailing Address			
Mailing Address 1014 South Pugh Street, Apt. 23			
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Digby		McDonald	
Inventor's Signature		Date	
		4/24/2001	
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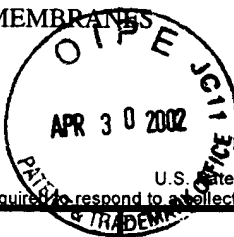
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PSU #99-2127 9266/6

Title: PROTON CONDUCTING POLYMER MEMBRANES

Filed: June 9, 2000

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## DECLARATION

ADDITIONAL INVENTOR(S)  
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Page 1 of 1

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Given Name (first and middle [if any])		Family Name or Surname	
Digby		McDonald	
Inventor's Signature		Date	
<i>[Signature]</i>		4/24/2001	
Residence: City	State	Country	Citizenship
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Mailing Address			
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24

\$1745

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Harry R. Allcock, Michael A. Hofmann, Serguei N. Lvov, and Xiang Y. Zhou

Serial No.: 09/590,985

Art Unit:

Filed: June 9, 2000

Examiner:

For: PROTON CONDUCTING POLYMER MEMBRANES

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Assistant Commissioner for Patents  
Washington, D.C. 20231

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CONSENT TO CORRECT INVENTORSHIP

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Sir:

As assignee of record of the entire interest of the above-identified application, as demonstrated by the attached Statement Under 37 C.F.R. § 3.73(b) and Assignments, consent is hereby granted to correct the named inventors to add Digby McDonald as a joint inventor.

The omission of naming Digby McDonald as a joint inventor in the above-identified application was an inadvertent error made without deceptive intent on the part of The Penn State Research Foundation at the time the application was filed.

I declare that all statements made herein of my own knowledge and belief are true and that all statements made on information and belief are believed to be true, and further, that the statements are made with the knowledge that willful false statements are punishable by fine or

imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

**THE PENN STATE RESEARCH FOUNDATION**

Date: August 8, 2001

Name: Ronald J. Huss

Title: Director, Intellectual Property Office

Signature: *Ronald J. Huss*



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Harry R. Allcock, Michael A. Hofmann, Serguei N. Lvov, and Xiang Y. Zhou

Serial No.: 09/590,985

Art Unit: 1745

Filed: June 9, 2000

Examiner: Yuan, D.

For: PROTON CONDUCTING POLYMER MEMBRANES

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POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST  
AND REVOCATION OF PRIOR POWERS

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Sir:

As owner of the entire interest in the above-identified patent application, as evidenced by the attached Statement Under 37 C.F.R. § 3.73(b), all powers of attorney previously given are hereby revoked and the following attorneys and agents are hereby appointed to prosecute and transact all business in the Patent and Trademark Office connected therewith:

Patrea L. Pabst  
Zhaoyang Li  
Rivka D. Monheit  
Yang Xu  
Jerome R. Smith

Registration No. 31,284  
Registration No. 46,872  
Registration No. 48,731  
Registration No. 45,243  
Registration No. 35,684

**Please send all correspondence relating to the above-identified patent application to:**

**Patrea L. Pabst  
HOLLAND & KNIGHT LLP  
Suite 2000, One Atlantic Center  
1201 West Peachtree Street, N.E.  
Atlanta, Georgia 30309-3400**

**(404) 817-8473 (Telephone)  
(404) 817-8588 (Fax)**

The undersigned signatory (whose title is supplied below) is empowered to act on behalf of the assignee identified below, and has reviewed all the documents in the chain of title of the above-identified patent application and, to the best of the undersigned's knowledge and belief, title is in the assignee.

**THE PENN STATE RESEARCH FOUNDATION**

By: Ronald J. Huss

Printed Name: Ronald J. Huss

Title: Director

Date: March 26, 2002

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**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: Harry R. Allcock, Michael A. Hofmann, Serguei N. Lvov, and Xiang Y. ZhouApplication No./Patent No.: 09/590,985 Filed/Issue Date: June 9, 2000Entitled: PROTON CONDUCTING POLYMER MEMBRANESThe Penn State Research Foundation, a Non-Profit Organization

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by, percentage) of its ownership interest is \_\_\_\_\_ %

in the patent application/patent identified above by virtue of either:

- A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, for which a copy thereof is attached.

OR

- B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

- Harry R. Allcock, Michael A. Hofmann,  
1. From: Serguei N. Lvov, and Xiang Y. Zhou To: The Penn State Research Foundation  
The document was recorded in the United States Patent and Trademark Office at  
Reel 011183, Frame 0965, or for which a copy thereof is attached.
2. From: Digby McDonald To: The Penn State Research Foundation  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

[ ] Additional documents in the chain of title are listed on a supplemental sheet.

- [ ] Copies of assignments or other documents in the chain of title are attached.  
[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

August 8, 2001  
DateRonald J. Huss

Typed or printed name

Ronald J. Huss

Signature

Director, Intellectual Property Office

Title

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PSU 2127 9266/6 PSU #99-2127

## ASSIGNMENT

I, Digby McDonald of 1010 Greenbriar Drive, State College, Pennsylvania 16801, in consideration of ten dollars and other valuable consideration paid to me by The Penn State Research Foundation, a corporation of the State of Pennsylvania, having its principal place of business at 207 Old Main, University Park, Pennsylvania 16802, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said The Penn State Research Foundation, its successors and assigns, my joint interest for the United States of America, and its territories and all foreign countries and jurisdictions, including all rights of priority under the International Convention for the Protection of Industrial Property, in a certain invention or improvement in "*Proton Conducting Polymer Membranes*" described in U.S. Application Serial No. 09/590,985 filed in the United States Patent and Trademark Office on June 9, 2000, by Harry R. Allcock, Michael A. Hofmann, Serguei N. Lvov, and Xiang Y. Zhou, which claims priority to U.S. Provisional Application Serial No. 60/138,710 filed in the United States Patent and Trademark Office on June 11, 1999, and in all Letters Patent of the United States and its territories and all foreign countries and jurisdictions which may or shall be granted on said invention, or any parts thereof, or on said application, or any provisional, divisional, continuation, continuation-in-part, reissue, or other applications based in whole or in part thereon. And I agree, for myself and my executor and administrator, with said corporation and its successors and assigns, but at its or their expense or charges, hereafter to execute all applications, amended specifications, deeds or other instruments, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and its territories and in all other foreign countries and jurisdictions to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation, and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And I do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

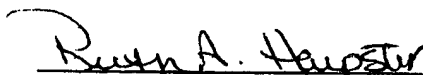
WITNESS my hand and seal this 24 day of April, 2001.

  
Digby McDonald

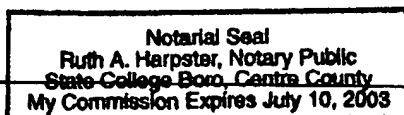
Commonwealth of Pennsylvania )

County of Centre )

Then personally appeared the above named Digby McDonald and acknowledged the foregoing instrument to be his free act and deed, before me this 24th day of April, 2001.

  
Notary Public

My Commission expires:



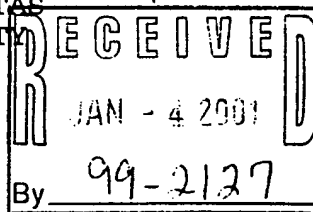


UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

DECEMBER 23, 2000

THE PENNSYLVANIA STATE UNIVERSITY  
THOMAS J. MONAHAN  
INTELLECTUAL PROPERTY OFFICE  
113 TECHNOLOGY CENTER  
UNIVERSITY PARK, PA 16802-7000

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UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

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RECORDATION DATE: 09/25/2000

REEL/FRAME: 011183/0965  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

ALLCOCK, HARRY R.

DOC DATE: 06/19/2000

ASSIGNOR:

HOFMANN, MICHAEL A.

DOC DATE: 06/19/2000

ASSIGNOR:

LVOV, SERGUEI N.

DOC DATE: 06/19/2000

ASSIGNOR:

ZHOU, XIANG Y.

DOC DATE: 06/19/2000

ASSIGNEE:

PENN STATE RESEARCH FOUNDATION,  
THE  
304 OLD MAIN  
UNIVERSITY PARK, PENNSYLVANIA 16802

SERIAL NUMBER: 09590985  
PATENT NUMBER:

FILING DATE: 06/09/2000  
ISSUE DATE:

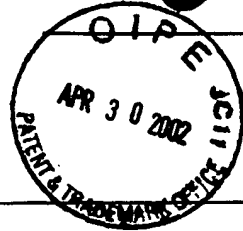
011183/0965 PAGE 2

TARA WASHINGTON, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

10-31-2000



101500061



U.S. Department of Commerce  
Patent and Trademark Office  
PATENT

9-25-00

RECORDATION FORM COVER SHEET  
PATENTS ONLY

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type

- ☒ New  
☐ Resubmission (Non-Recordation)

Document ID #

- ☐ Correction of PTO Error

Reel #  Frame #

- ☐ Corrective Document

Reel #  Frame #

Conveyance Type

- ☒ Assignment ☐ Security Agreement  
☐ License ☐ Change of Name

- ☐ Merger

Other

U.S. Government

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- ☒ Mark if additional names of conveying parties attached

Name (line 1)

Name (line 2)

Second Party

Name (line 1)

Name (line 2)

Execution Date  
Month Day Year

06 19 00

Execution Date  
Month Day Year

06 19 00

Receiving Party

- ☐ Mark if additional names of receiving parties attached

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)     
City State Zip Code

- ☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate Document from Assignment)

Domestic Representative Name and Address

Enter for the first Receiving Party only

Name

Address (line 1)

Address (line 2)

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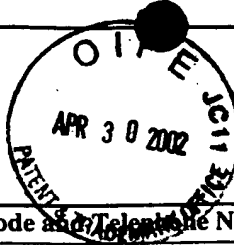
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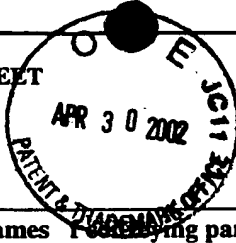
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hereby sell, assign and transfer unto THE PENN STATE RESEARCH FOUNDATION

as assignee, and its successors, assigns and legal representatives, the entire right, title and interest in and to all subject matter invented by us and disclosed and claimed in an application for Letters Patent of the United States of America, entitled:

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signed by us on the date set forth below; and in and to any and all divisions, reissues, continuations and extensions thereof; and in and to all corresponding applications for Letters Patent and all Convention and Treaty Rights of any kind, in all countries throughout the world, for all such subject matter.

We request that any and all patents for said inventions be issued to said assignee, its successors, assigns and legal representatives, or to such nominees as it may designate.

We agree that, when requested, we will, without charge to said assignee but at its expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for securing and maintaining patents for said inventions in any and all countries and for vesting title thereto in said assignee, its successors, assigns and legal representatives or nominees.

We authorize and empower the said assignee, its successors, assigns and legal representatives or nominees, to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from us.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of the said assignee or nominee to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

We covenant with said assignee, its successors, assigns and legal representatives, that the rights and property herein conveyed are free and clear of any encumbrance, and that we have full right to convey the same as herein expressed.

Signed at University Park, Pennsylvania,

this 19 day of June, 2000.

Witness:

*Robert V. McFarland*

*Harry R. Allcock*  
HARRY R. ALLCOCK

Signed at

*University Park*  
*Robert V. McFarland*

this 19 day of June, 2000.

Witness:

*Michael A. Hofmann*  
MICHAEL A. HOFMANN

Signed at *University Park*

this day of , 2000.

Witness:

*E. G. Kline*

*Serguei Lvov*  
SERGUEI N. LVOV

Signed at *University Park*

this 19 day of June, 2000.

Witness:

*E. G. Kline*

*Xiang Y. Zhou*  
XIANG Y. ZHOU

19 June, 2000